



ENVS NEWS



Environmental Science
Undergraduate Program

FALL 2024

Happy fall !

Welcome to our newsletter covering recent news from the Environmental Sciences (ENVS) program at Georgia Tech.

Fall highlights:

- 58 current ENVS majors!
- Sweatshirts-and-Snacks event: Wed Oct 9, 12:30-2:30pm, EST 2nd floor atrium
- Successful ENVS welcome event and EAS camping trip
- '24-'25 ENVS student representative: Jenny Samuel
- ENVS student spotlight: Miles Appleton
- Faculty spotlights: Dr. Erin Griffith and Dr. Christopher Reinhard
- Student group highlight: Students Organizing for Sustainability
- Course highlight: Environmental Geochemistry lab (EAS 4221)
- New and improved EAS alumni interviews on the EAS website (60!)
- Weekly newsletter of jobs, internships, summer programs, & campus activities ... and much more!

Thank you for your role in ENVS' success !

Your ENVS co-directors,

Jennifer Glass (right)
Samantha Wilson (left)
Linda Green (middle)



eas.gatech.edu/envs

Welcome to ENVS!

Thursday August 15, 1-2pm
Kendeda 298

Enjoy snacks and meet the ENVS community to
kickoff the fall semester !

Free tie-dye
t-shirts for
majors !

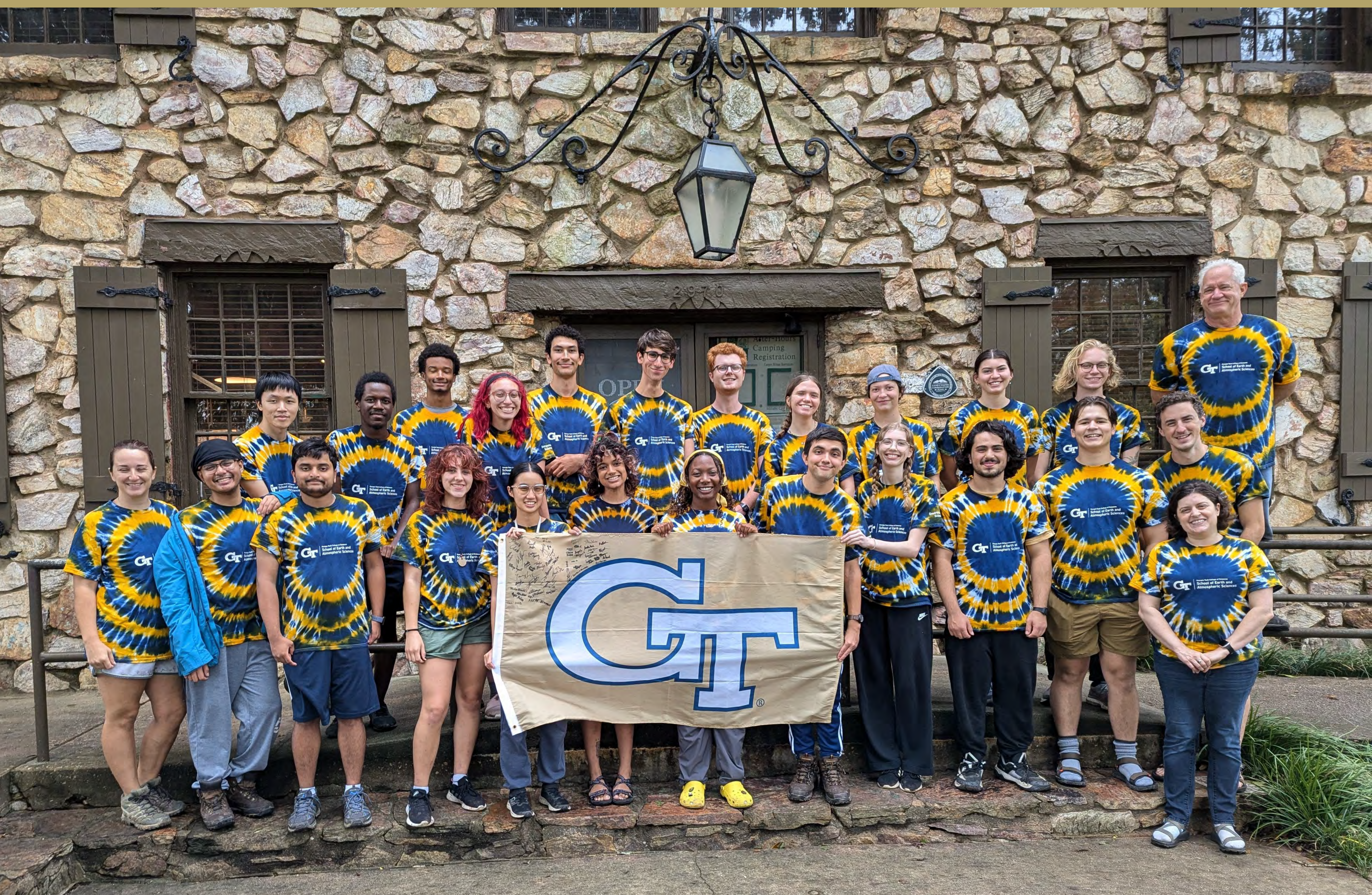


On August 15th, during GT Welcome Week, we welcomed new and returning ENVS majors for snacks, lab demos, and tie-dye t-shirts!



EAS Fall 2024 Undergraduate Camping Trip

On September 13-15, 2024, EAS hosted its second annual undergraduate camping trip at F.D. Roosevelt State Park. This year's theme was ecology. Students toured the Warm Spring National Fish Hatchery with Michael Fulghum, where they learned about the different recovery programs being worked on at the facility. The tour was followed by a rainy but fun hike to the Pine Mountain Cascade Falls. It was a rainy weekend, but the students kept spirits high by hanging out in the shelter and around the fire when possible with lots of laughter and snacks. Of 21 students who attended, 9 were ENVS majors and of those, 7 were first years!



FALL SOCIAL



On October 9th, we celebrated the start of autumn with snacks, crafts, hot cider, hot chocolate, ENVS sweatshirts, and community building! We had great turn out: 29 ENVS majors attended!

CRAFTING AT FALL SOCIAL



JENNY SAMUEL

ENVS STUDENT REP '24-'25

Tell us a bit about yourself!

I'm a 4th year ENVS major. I grew up in Bergenfield, New Jersey and my parents immigrated from India and Dubai. My interest in Environmental Science began after visiting my uncle, who studied the field and gave me a tour of his land reserve in Kerala, India. The reserve was dedicated to preserving native plant species and collecting data on environmental changes, like changes in rainfall patterns. It really inspired me and deepened my passion for the environment and protecting it.

Why did you decide to transfer into the ENVS program?

I was drawn to the more biology-focused classes and the flexibility of classes. One of my favorite aspects of the program is the closer-knit community of classmates and advisors. I think because our program is smaller compared to others at GT it's easier to get to know everyone, and there's a sense of support. People share amazing opportunities for you to grow and expand your network and skills. Also, the ENVS program allows you to customize your classes. I really liked that I could choose Biostatistics because that's what I was more interested in, but I still preferred to be in Geochemistry rather than Microbiology because I wanted to learn more about geochemical processes.

Have you participated in any student research?

I had two great experiences: in summer 2024 with GA Environmental Protection Division in their hazardous waste management in their Land Branch and in summer 2023 with City of Atlanta, Office of Sustainability. With GA EPD I learned a lot more in depth information about the Superfund process with chemical cleanup and treatments and what the reporting entails. With my internship with City of Atlanta I gained experience with greenhouse gas reporting and tracking Atlanta's progress with their Climate Action Plan. Additionally, since my second year I've been a teaching assistant for EAS 2600 where I get to teach lab sections for Earth Processes and have way too much enthusiasm for rocks.

What do you envision for your future career?

I aspire to work in environmental consulting, either conducting fieldwork, such as collecting and testing water and soil samples, or contributing to the business side through ESG reporting to help companies meet their sustainability goals.

What else?

I haven't always had the greenest thumb with keeping houseplants, but as an ENVS major my new hobby is actively teaching myself how to care for plants! Currently my collection consists of neon pothos, snake plant, and a variegated rubber tree. I also love trying new food places around Atlanta, baking, playing volleyball, and hiking.

**ENVS students:
please contact Jenny
(jsamuel16@gatech.edu)
with comments about or
suggestions for the program!**



STUDENT SPOTLIGHT

Tell us a bit about yourself!

I'm a 3rd year ENVS major. I grew up in Central Massachusetts and have been a nature nerd since I was born. My parents have countless stories of baby Miles being enthralled with the world around him. The pictures of me looking ecstatic holding snakes and frogs while in a diaper are some of my favorites. Until around 14, my go-to answer for what I wanted to be when I grew up was a marine biologist. Around then, it started to shift towards terrestrial, mostly due to mycology and herpetology. Thanks to a good friend, I got put in contact with a researcher at the Harvard Museum of Comparative Zoology doing a frog reintroduction project. That bolstered my love of amphibians and slightly later reptiles. The fungi that sparked my fascination was a coral fungus (*Ramaria lorithamnus*) I found in my grandparents' woods. It was so strange, like a terrestrial sea anemone. Immediately I began to wonder why I was never taught about these seemingly otherworldly organisms. It led to an immensely enjoyable cycle of self-learning. I would go out into the forest and search for any mushrooms, spending as much time crouched using iNaturalist as walking.

Why did you decide to transfer into the ENVS program?

I transferred into ENVS because a lot of the biology curriculum isn't centered around the natural world. I came in as a Biology major, and understandably that program is pre-med heavy. ENVS allowed me to focus on my broad interests in ecology and evolution. I'm also going for a minor in biology. ENVS is wonderful because the major is so flexible. Funnily enough, I'm able to take more upper-level biology classes on topics I'm interested in than if I was still a Bio major.

Have you participated in any student research?

This past summer I worked as a research assistant in Miami, with the Stroud lab. We spent about 4 weeks collecting data on 5 species of anoles at Fairchild Botanical Garden. It was a wonderful experience filled with great Latin American food, about 900 lizards, and most importantly amazing coworkers.

What do you envision for your future career?

I'm not sure exactly what path I want to take. Right now, I stand at a fork in the road between pursuing mycology or herpetology professionally; past that there are even more splits for each. What I do know is I never want to stop learning about the natural world, and my career should facilitate that. Additionally, I love teaching people about nature, and it would be fulfilling to have teaching be a component of my career.

What are your hobbies and interests outside of academics?

My main hobbies are woodworking, cooking, and playing guitar. I like working with my hands and one of the things I appreciate most about art is the technical skill that goes into creating it. I also really enjoy having some sort of problem-solving in the process, so all three of those scratch that itch, particularly the first two. I could go on for a while about favorite foods, but recently I've been getting into Mexican cooking. So fully homemade chilaquiles top the list, followed by bánh mì and maduros (sweet plantains).



MILES APPLETON

FACULTY SPOTLIGHT

What course(s) on the ENVS curriculum do you teach?

I teach EAS 2600, Earth Processes, in addition to the labs for that class and for EAS 4221, Environmental Geochemistry. EAS 2600 is essentially an introduction to geology, but by looking at all of the various processes on Earth, we can begin to understand how they all work together to create a planet that we can live on. The lab for environmental geochemistry simulates the scientific process and is designed to bridge the gap between introductory lab classes, and actual scientific research. We take samples from river water in Atlanta and analyze it for various geochemical properties.

What is your favorite part of being a faculty member at Tech?

The students! Y'all are so smart and dedicated to creating a better future, that you inspire me every day to be the best version of myself. Most of my job is providing you with foundational information and then stepping back and watching your knowledge grow.

What inspired you to choose a career in sustainability?

After two decades working as an engineer who designed buildings, I was ready to move into a field that matched my core values of protecting our planet. As I worked through my PhD, I had the opportunity to become a teaching assistant, and although I did not expect to love teaching, I do!

What are your research interests and do you ever involve undergraduates in your research?

Previously, I researched biogeochemical cycling of zinc in diatoms, a phytoplankton with a beautiful microscopic pore pattern in its silica exoskeleton. Currently, I am not engaged in formal scientific research, although I am constantly working with undergraduate students who are the teaching assistants for the Earth Processes lab. I often draw upon my experience in corporate America with my experience in an academic setting to provide both work and teaching experience, so, depending on whether they plan on a career in academia or in the corporate world, they are as prepared as I am capable of.

What else should we know about you?

If you're curious, just ask! Professors aren't (always) monolithic, unapproachable monsters. Personally, I have a large family, with 5 sisters. 2 of my sisters and 2 of my brothers-in-law went to Georgia Tech. My father and stepfather taught high school and two of my sisters are currently teaching at the high school level. I have 4 children and 4 cats and will talk incessantly about any of the above, if given the chance.

DR. ERIN GRIFFITH
LECTURER

SCHOOL OF EARTH & ATMOSPHERIC SCIENCES



FACULTY SPOTLIGHT

What course(s) on the ENVS curriculum do you teach?

The primary course I teach in the ENVS curriculum is Carbon Dioxide Removal (EAS 8803/4803). We discuss the basics of Earth's carbon cycle, the IPCC's assessment of climate and greenhouse gas emissions reduction goals, and the practical and ethical dimensions of implementing carbon removal.

What is your favorite part of being a faculty member at Tech?

Transcending disciplinary boundaries in research and learning is something people talk about a lot, and with good reason – many of the most important challenges we face as a species will require this. But it is easier said than done. I'm regularly amazed at how curious and interdisciplinary the faculty and students are here; in my experience it is pretty special.

What inspired you to choose a career in sustainability?

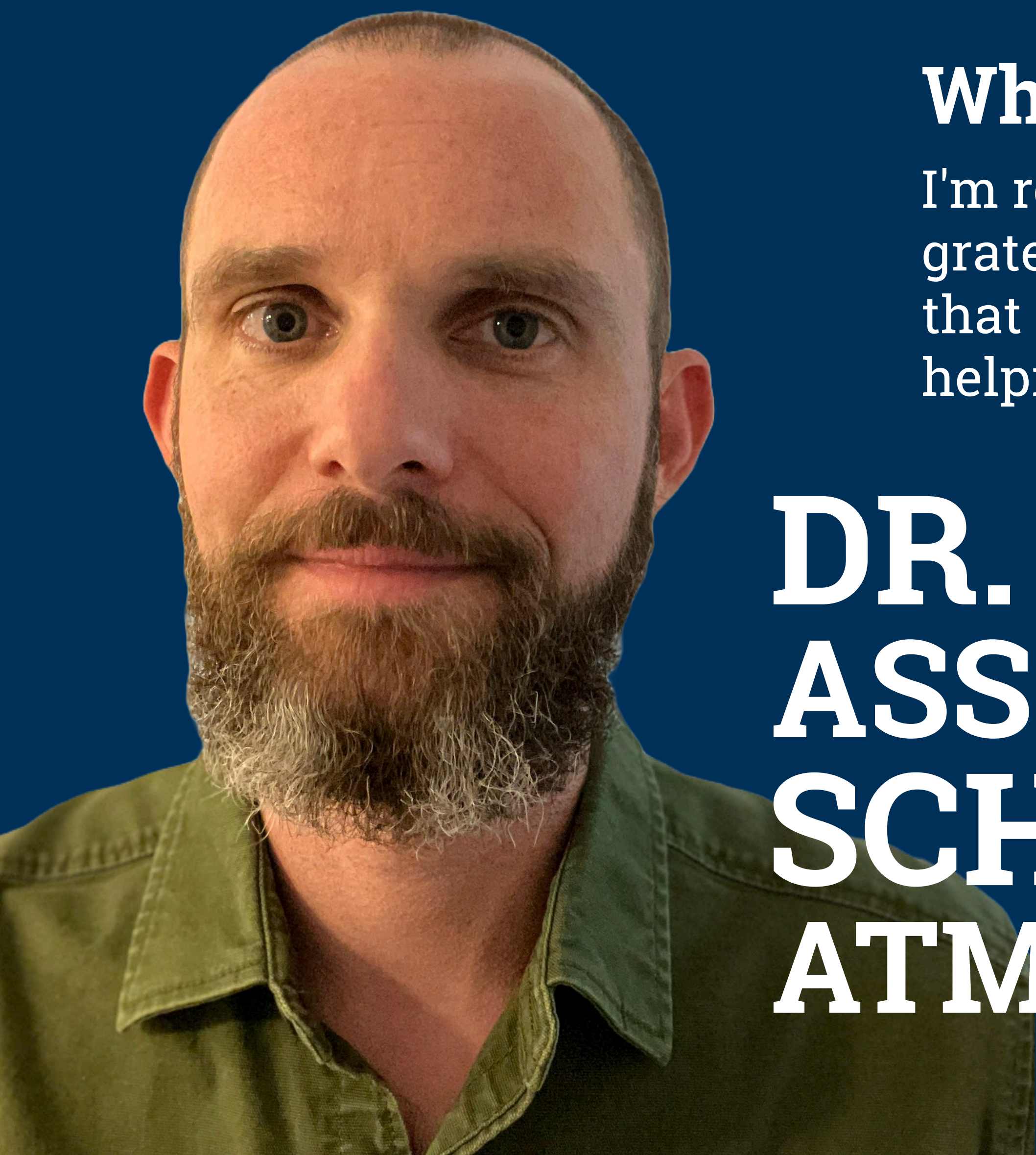
I've been fascinated by biology for as long as I can remember, and was very lucky to have a few places to go turn rocks over when I was young. I studied ecology and evolutionary biology as an undergraduate, and worked at the Kansas Biological Survey over the summer. I think the folks I worked with there were a key early inspiration for me.

What are your research interests and do you ever involve undergraduates in your research?

I'm interested in how planets work, and how life impacts them. This includes studying how human society shapes greenhouse gas cycling and developing technical tools for mitigating human environmental impacts, but also involves "blue sky" research on how Earth's carbon and nutrient cycles operate and how they have changed over time. I'm always keen to talk about possible projects with interested students, and periodically take on students for research credit.

What else should we know about you?

I'm really excited about the ENVS program, and very grateful for the talented and hardworking faculty and staff that spearheaded its development and the students that are helping it grow!



**DR. CHRIS REINHARD
ASSOCIATE PROFESSOR
SCHOOL OF EARTH &
ATMOSPHERIC SCIENCES**

COURSE HIGHLIGHT: EAS 4221



The **EAS 4221 Environmental Geochemistry Lab** allows undergraduate students to embrace the uncertainty of testing in the natural environment, within the security of monitored coursework. There are no predetermined answers to this lab. Instead, we start with basic fieldwork techniques and bring the samples back to the lab for additional testing on more advanced equipment. We test the main cations on a flame atomic absorption spectrometer, and the main anions on an ion chromatographer. We also use gran titration to test the carbonate alkalinity of the water and test nitrites and iron using a spectrophotometer. Students are encouraged to problem solve and to work together to achieve a testable and achievable hypothesis of some geochemical properties of our urban waterways. Photos show sampling and in situ analysis of pH, dissolved oxygen levels, conductivity, and water and air temperature from the Chattahoochee River in September 2024.

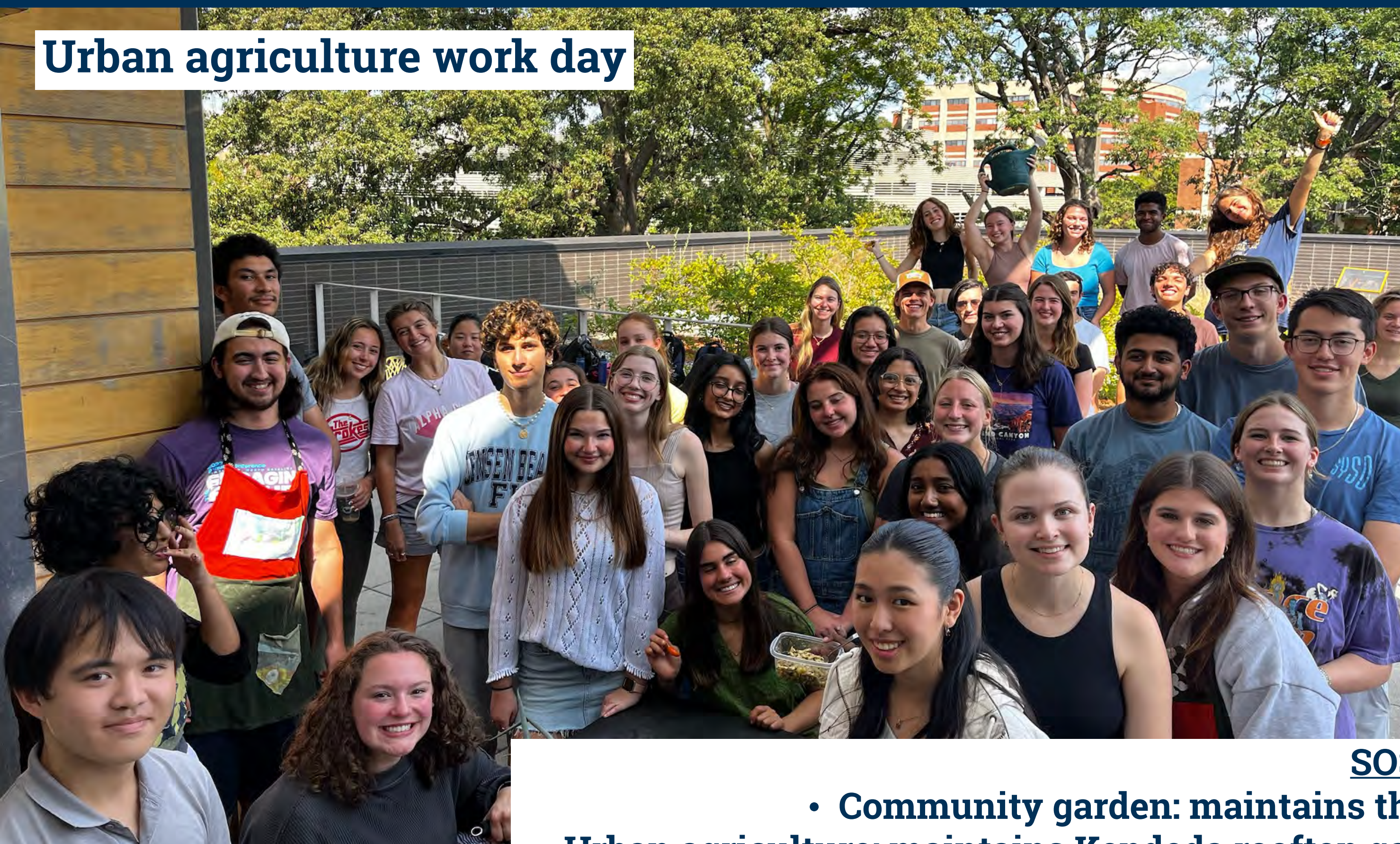


STUDENT GROUP SPOTLIGHT

STUDENTS ORGANIZING FOR SUSTAINABILITY

Students Organizing for Sustainability is an organization on campus dedicated to promoting the awareness and implementation of environmentally and economically sustainable practices on our campus and in the local Atlanta community. We're mainly project-based and run some of the most important sustainable projects on campus. We have meetings every other Monday and encourage students to take leadership and begin new projects!

Urban agriculture work day



SOS projects:

- **Community garden:** maintains the community garden and host events there
- **Urban agriculture:** maintains Kendeda rooftop garden and promotes urban agricultural practices on campus
 - **Invasive species removal:** removes invasive plants along the Kendeda Hill
- **Cultivote:** environmental voter group, focused this semester on voter registration for this semester
 - **Hydroponics:** a group dedicated to help educate people about hydroponics and their benefits
 - ...and more! We have new projects starting this year and are always open to new ideas!



Community garden harvest

Cultivote's voter registration drive

Leadership:

President: Jenny Samuel, ENVS major
VP of Events: Ashwini Tulpule
VP of Finance: Nicole Allen
VP of Projects, Alyssa Zandstra
Secretary: Katie Griffin, ENVS major
Community Garden Director: Bronwyn Armitage

Instagram: [sos.gatech](https://www.instagram.com/sos.gatech)

Linktree*: linktr.ee/sos.gatech

Website: sos.gtorg.gatech.edu

*join our slack and calendar!

EPA LUNCH & LEARN: A CASE FOR CLIMATE OPTIMISM

On September 19, 2024, the SGA Sustainability Committee hosted Environmental Protection Agency (EPA) Advisors Anna Benkeser and Zealan Hoover for a lunch-and-learn in the Kendeda Building. The two used their valuable firsthand experience to make the argument for “climate optimism” – the sentiment that even though anthropogenic climate change can seem like an insurmountable global challenge, there are plenty of reasons to be optimistic about our future. In particular, they showcased the surge in sustainable development that we have seen across the United States thanks to the more than 100 billion dollars allocated by the government to the EPA over the past few years. Benkeser and Hoover were also generous enough to present the case for climate optimism before multiple classes in the ENVS curriculum. They closed every presentation, including the lunch-and-learn, by raising awareness about the many different climate-conscious careers that exist in both the public and private sectors. In conjunction with this, they provided networking/career research platforms that could start audience members on their journeys to finding fulfilling, sustainable careers that further contribute to climate optimism.



**FREE
FOOD**

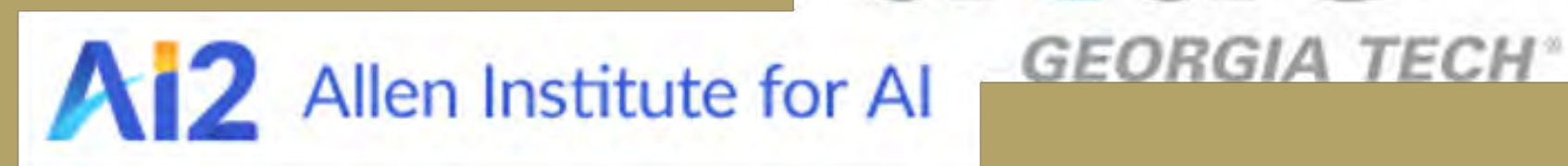


**Student Government Association
Ray C. Anderson Center for Sustainable Business
Brook Byers Institute for Sustainable Systems**

**GRAD
FRIENDLY**

EPA LUNCH & LEARN

WEEKLY OPPORTUNITIES FOR ENVVS!

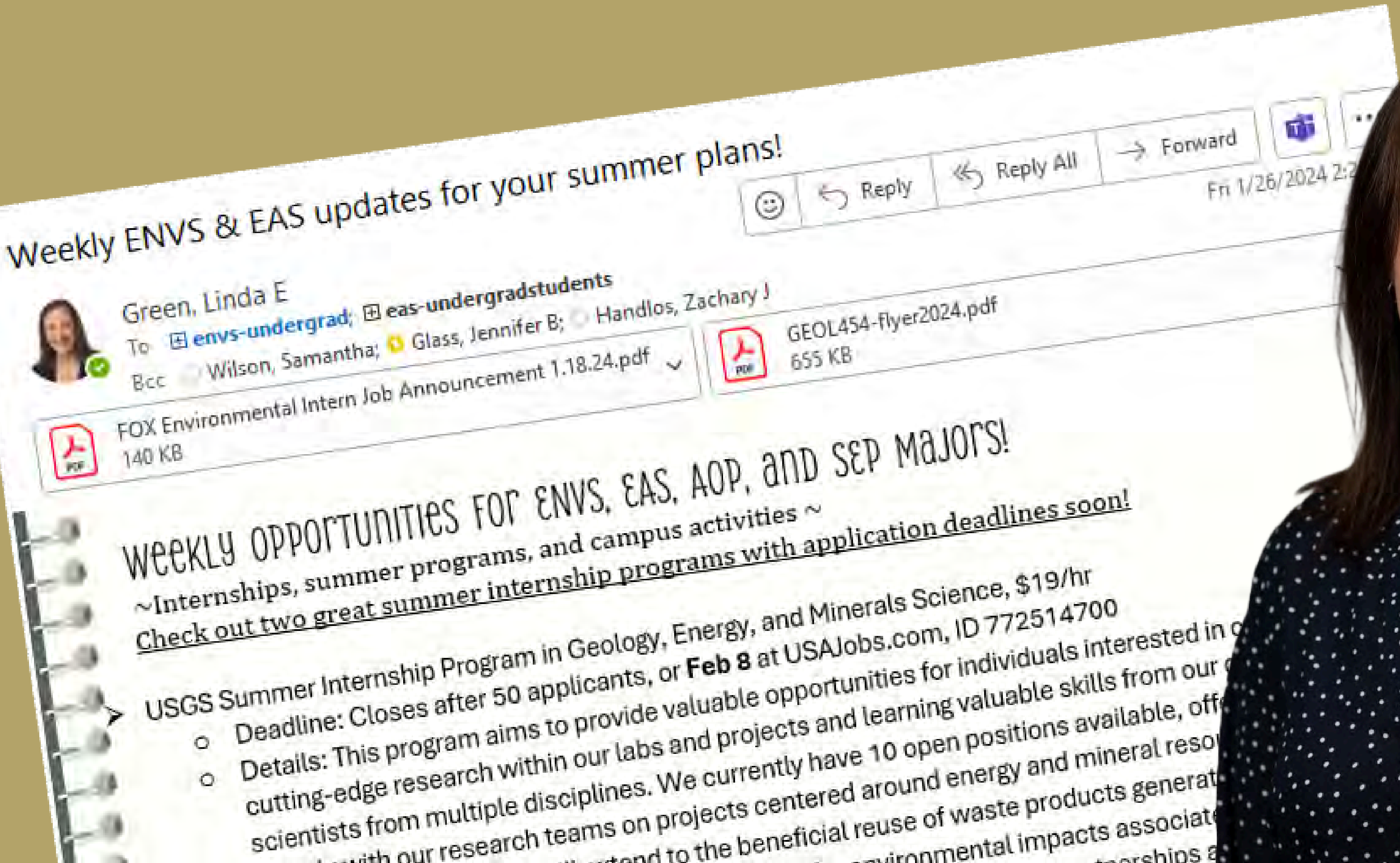


Beginning January 2024, Dr. Linda Green has been sharing a weekly email to ENVV (and EAS, SEP, and AOP) majors with recent job postings, internship details, summer programs, and campus events.

“We hope to help highlight exciting opportunities while making it easier for students to keep track of what might interest them,” shared Dr. Green.

The newsletter has also been a place to help connect students interested in uniting around sustainability efforts on campus. Several ENVV majors are working with sustainability campus orgs to build awareness and broaden impact.

Alumni with internship or job possibilities can share to linda.green@gatech.edu to be added to the distribution.



ALUMNI INTERVIEW WEB PAGE

eas.gatech.edu/undergrad/alumni

School of Earth and Atmospheric Sciences Alumni

Where are our undergrads and grads now?

Click on a name to learn more our alumni!



Bridget Adkins
B.S. EAS 2000
AP Chemistry Reader, The College Board



Jordan Beckler
B.S. EAS 2006; Ph.D. EAS 2013
Associate Research Professor, Florida Atlantic Harbor Branch Oceanographic Institute



James Belanger
B.S. EAS 2007; Ph.D. EAS 2012
Head of Weather, Engelhart Commodities Trading Partners



Laura Belanger
B.S. EAS 2007; M.S. EAS 2008
Senior Service Hydrologist, National Weather Service



Jerry Bowling
B.S. EAS 1996; Ph.D. U Alabama 2004
Geophysicist, ConocoPhillips



Curtis Brideau
B.S. EAS 2009
Software Test Engineer, Barrios Technology



Stacy Carolin
B.S. EAS 2008; Ph.D. EAS 2014
Research Associate, University of Cambridge



Hunter Clasen
B.S. EAS 2011; Ph.D. U South Florida 2018
Hydrogeologist, ASRus



Colleen Coyle
B.S. EAS 2008
On-Air Freelance Meteorologist, The Weather Channel



David D'Onofrio



Anthony Diaz



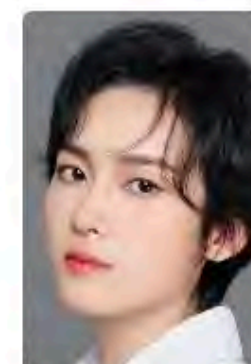
Chelsea Edwards



Terry Latham
B.S. EAS 2006; Ph.D. EAS 2012
Government Relations Manager, Ingevity



Melissa Le Fevre Coggin
B.S. EAS 2013
Weather Producer, The Weather Channel



Camilla (Xinyi) Liu
B.S. EAS 2019; Ph.D. U Chicago in progress
Co-Founder/CEO, Voyagers Outdoor LLC



Kathleen McCanless
B.S. EAS 2009; M.S. U Alabama 2015; J.D. Villanova University 2019
Assistant Attorney General, State of Georgia



Brandon Miller
B.S. EAS 2006; M.S. EAS 2008
Supervising Producer, Meteorologist & Climate Crisis Beat Leader, CNN



Samantha Motz
B.S. EAS 2022
Hydrogeology PhD Student at UC Santa Cruz



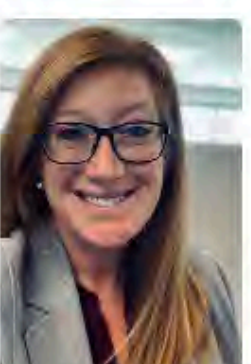
Jordan Murdock
B.S. EAS 2022
Weather and Environmental Science Officer, US Air Force



Daniel Nielsen
B.S. EAS 2014; M.S. U Maryland 2016
Senior Meteorologist, Bonneville Power Administration



Melissa Nord
B.S. EAS 2013
Meteorologist, 11-Alive



Shannon (Cohen) O'Dell
B.S. EAS 2008
Senior Consultant, Trinity Consultants



Carson Olsheski
B.S. EAS 2005; J.D. Georgia State 2015
Associate, Desmarais LLP



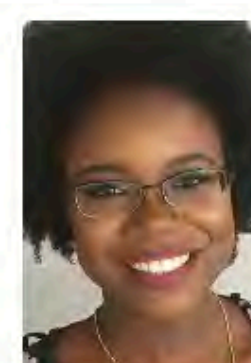
Julie Paul
B.S. EAS 2007; M.S. EAS 2008
Energy Efficiency Program Manager, Georgia Power



S. J. (Silas) Ralston
B.S. EAS 2014; M.S. UNLV 2018
Mars Research Scientist, Jacobs JETSII contract



Zeeshan Rasheed
B.S. EAS 2016; M.B.A. Boston U 2021
Project Manager, Spark Foundry



Lauren (Merritt) Reaves
B.S. EAS 2015; M.S. EAS 2016
Meteorologist, Pacific Gas and Electric Company

Read interviews with career advice from 60 EAS alumni!

On the website, click the alum name to read their interview



Jimmy Eisenbeck
B.S. EAS 2005; MS MIT 2007
Technical Staff, MIT Lincoln Laboratory



Joe Estep
B.S. EAS 2009; Ph.D. EAS 2014
Geophysicist, Chevron



Allison Febbo
B.S. EAS 1998; M.S. UC Davis 2000
General Manager, Westlands Water District



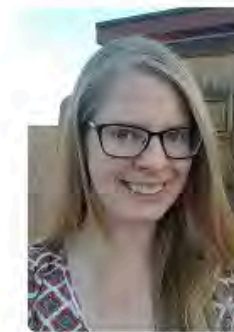
Maggie (Dinzio) Fielder
B.S. EAS 2014; B.S. Mechanical Engineering, U Alabama 2021
Scientist/Engineer II, Linc Research, Inc



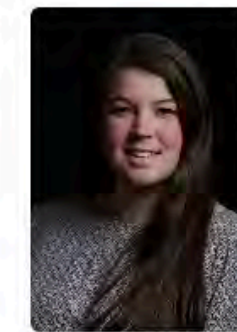
Brandon Foskey
B.S. EAS 2008; M.S. Mercer 2012
Assistant Director of Research Safety, University of Georgia



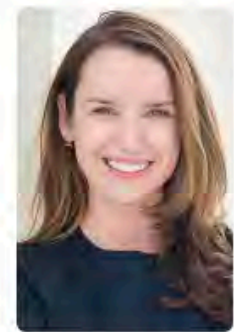
Commander (CDR) Marc 'Viris' Fryman
B.S. EAS 1996; M.Eng. Naval Postgraduate School 2012
Instructor, Delta Airlines



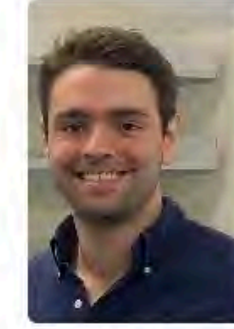
Christine Gammans
B.S. EAS 2011; M.S. U Utah 2013
Seismo-Acoustic Research Technologist, Los Alamos National Laboratory



Kaitlin (Gardner) Depping
B.S./M.S. EAS 2016
Manager, Environmental Programs and Systems, Norfolk Southern



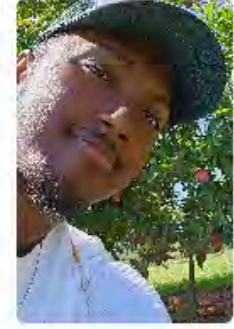
Alison Graab
BS EAS 2008; JD College of William & Mary 2011
Executive Director, The SAF Coalition



Nicholas Hitt
B.S. EAS 2016; Ph.D. Victoria University of Wellington 2020
Principal Data Analyst - Climate and Environment



Andrew Horan
B.S. EAS 2009; M.S. U Florida 2012
International Affairs Project Manager, National Weather Service



Damian Horton
B.S. EAS 2019
Staff Engineer/Geologist/Environmental Specialist, United Consulting Group



Caitlin Kaiser
B.S. EAS 2023
Digital Meteorologist, The Weather Company



Namrata Kolla
B.S. EAS 2016; M.P.P. U Washington 2017
Project Lead, Skylight, Allen Institute for AI (AI2)



Will Lanxon
B.S. EAS 2013
Meteorologist, Georgia Emergency Management Agency (GEMA)



Janessa Rowland
B.S. EAS 2014
Environmental Compliance Specialist, Georgia Environmental Protection Division- Air Protection Branch



Caitlin (Martin) Santinelli
B.S. EAS 2008
Environmental Scientist, Jacobs



Elizabeth Scheehle
B.S. EAS 1997; Masters in Public Policy, Harvard, 1999; MPH JHU 2010
Chief, Research Division, California Air Resources Board



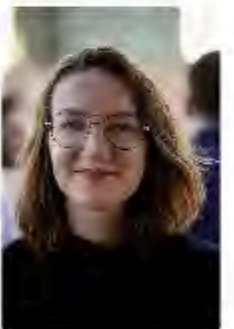
Gregory Schultz
B.S. EAS 1998; Ph.D. EAS 2002
Chief Technology Officer, White River Technologies



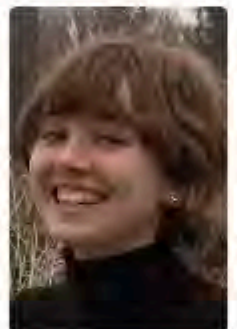
Melanie Snow
B.S. EAS 2005; M. Ed. Georgia State 2007; Ph.D. U Illinois Chicago 2022
Senior Educator, Museum of Science and Industry Chicago



Samuel Snow
B.S. EAS 2009; Ph.D. EAS 2014
Associate Professor, Louisiana State University



Chloe Stanton
B.S. EAS 2017; M.S. Penn State 2019
Sustainability Manager, Wesco



Ella Stewart
B.S. EAS 2022; M.S. EAS 2023
Solar Resource Modeling Analyst, NextEra Analytics



Kelly Stiegel
B.S. EAS 2012; M.D. Baylor 2016
Orthopedic surgeon, Sumner Regional Medical Center



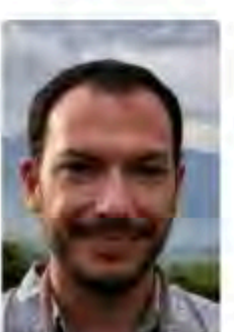
Sara Tonks
B.S. EAS 2019; M.S. EAS 2020
Weather Producer/Meteorologist, CNN



R. Jessica Turner
B.S. EAS 1997; M.S. Georgia State 2005 with GIS certificate; Professional Geologist (PG)
Senior Project Manager, GEI Consultants, Inc.



Jenn Varian
B.S. EAS 2016; M.S. EAS 2017
Meteorologist, National Weather Service



Matthew Widlansky
B.S. EAS 2005; M.S. EAS 2007; Ph.D. EAS 2010
Associate Director, University of Hawaii Sea Level Center



Megha Young
B.S. EAS 2003; M.C.R.P. 2005
Senior Transportation Planner, Gresham Smith

& more!

CHECK OUT OUR "LITTLE FREE LIBRARY"

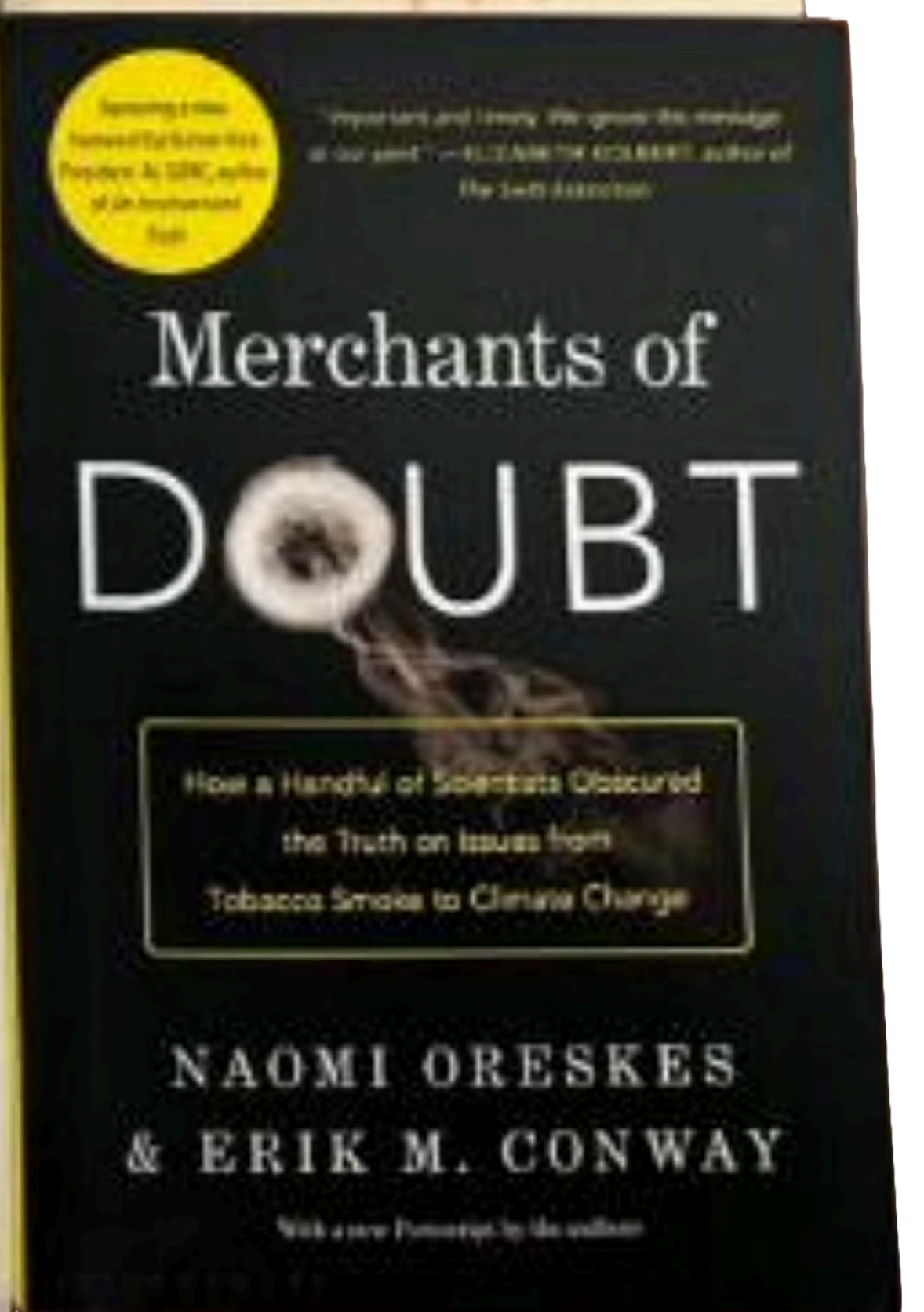
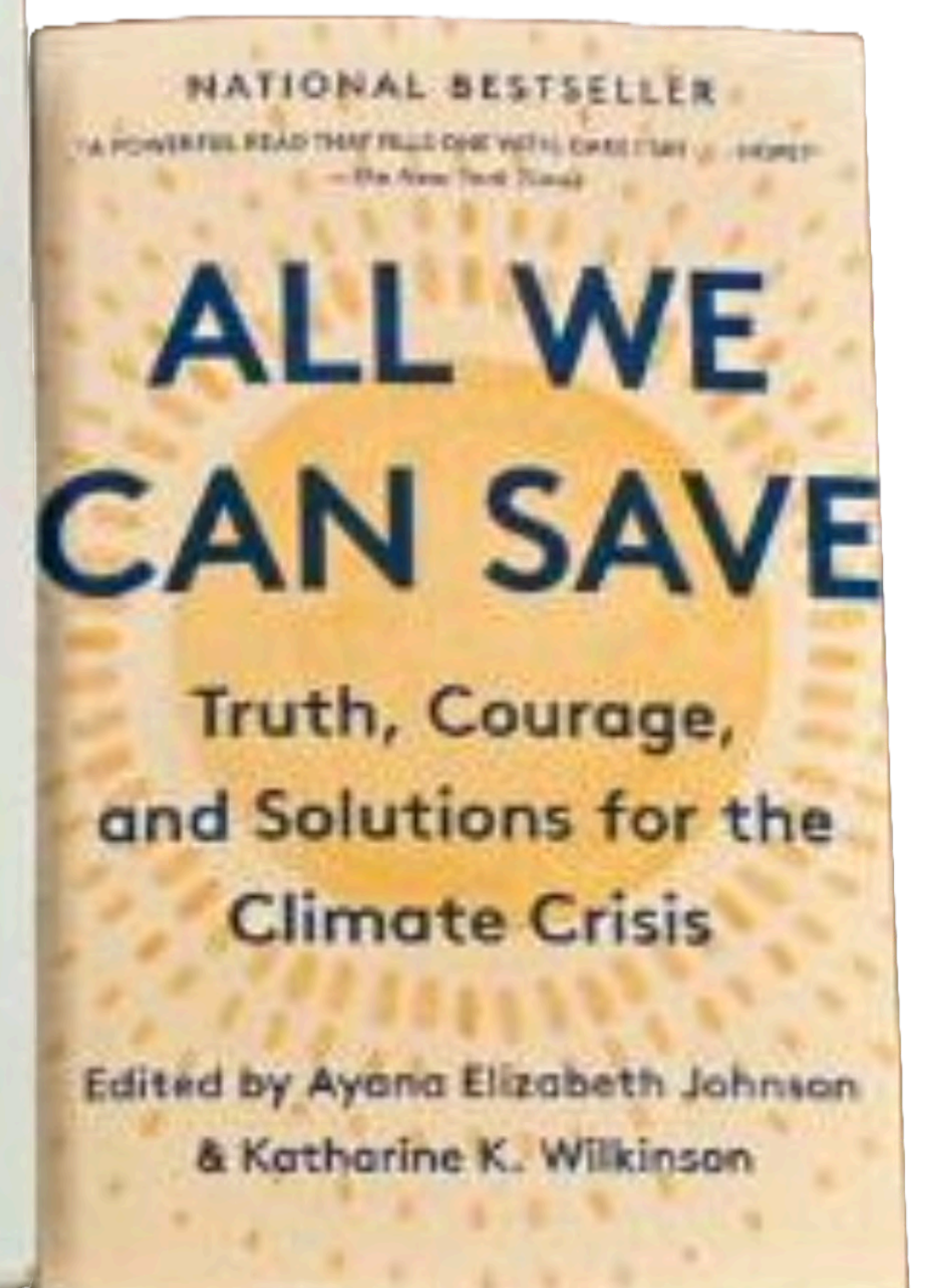
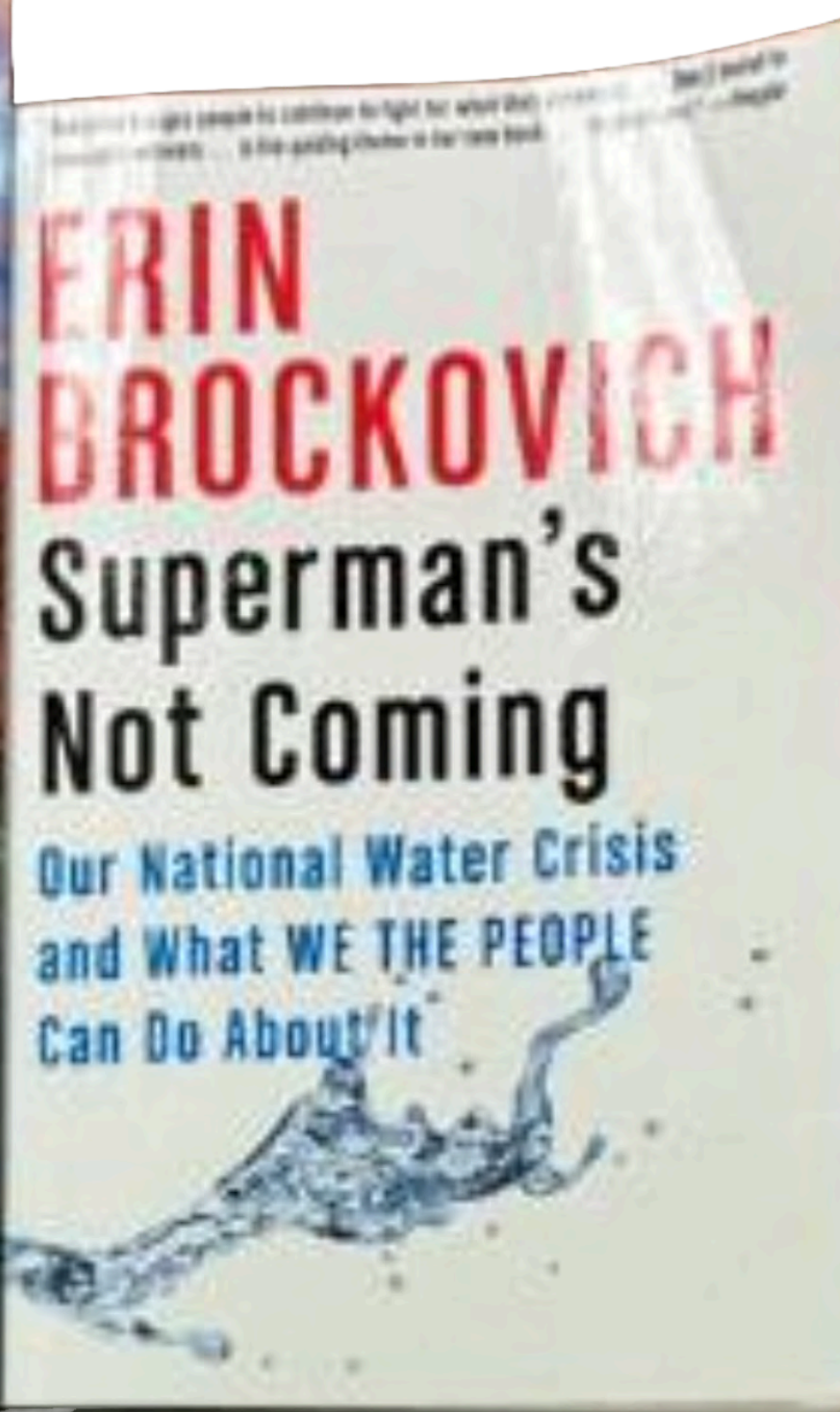
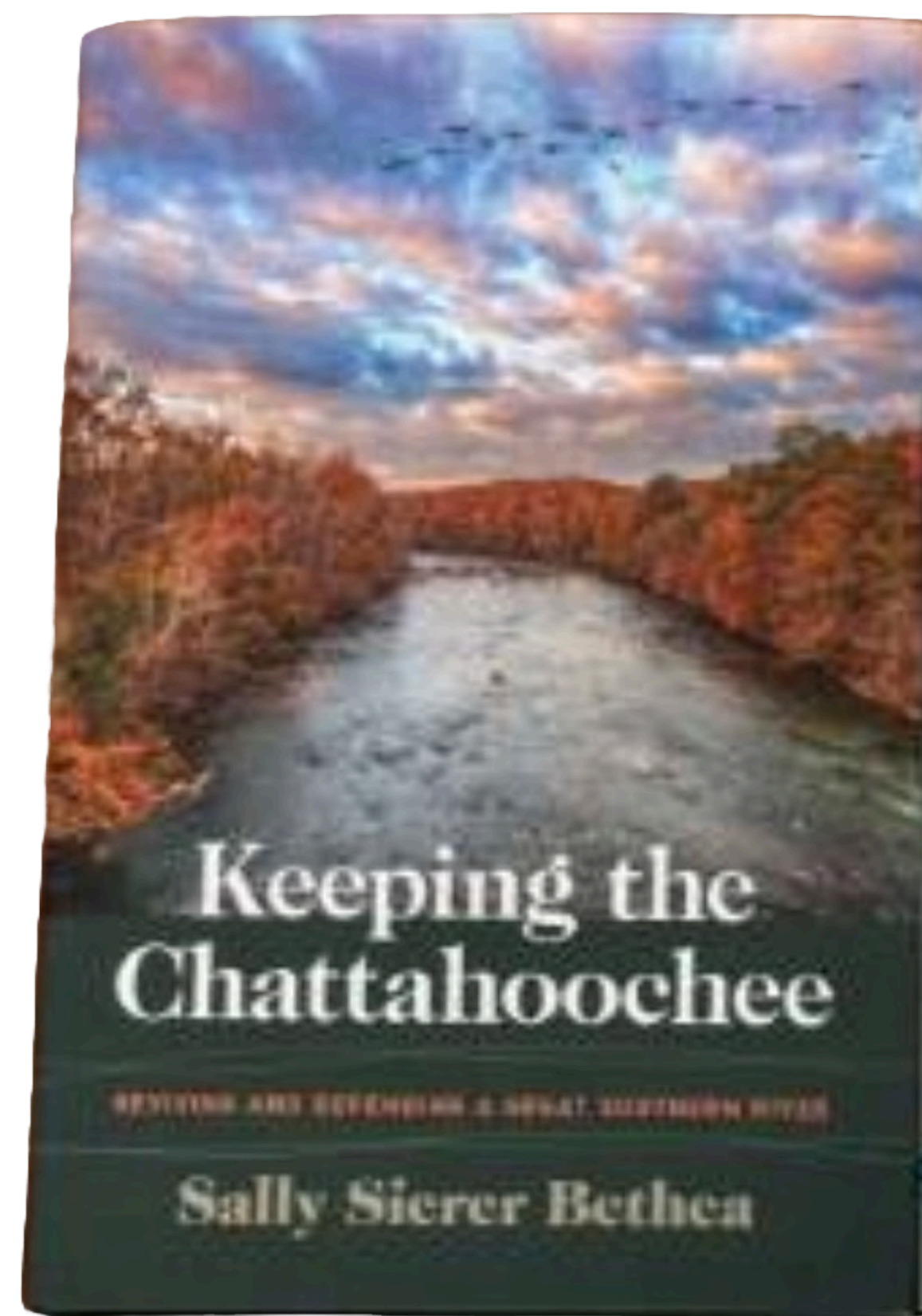


**Ford ES&T 1250
EAS mail room**

**Books for
undergraduates**

A range of
books on
environmental
topics ... take a
book or leave a
book

Funded by
Georgia Tech
Honors
Program



**QUESTIONS?
COMMENTS?
SUGGESTIONS?**



**Dr. Jennifer Glass
ENVS Director
jennifer.glass@eas.gatech.edu**

**Dr. Samantha Wilson
ENVS Curriculum Director
samantha.wilson@eas.gatech.edu**

**Dr. Linda Green
ENVS Experiential Learning Director
linda.green@gatech.edu**

Looking for internships?

**Check weekly email from Dr Green & LinkedIn:
<https://www.linkedin.com/groups/8537487/>**

Giving to ENVS:

<https://eas.gatech.edu/alumni/giving>